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EXAMINER

PAYNE, SHARON E

ART UNIT PAPER NUMBER

2875

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/711,006

Applicant(s)

KLOOTZ, JACK

Examiner

Sharon E. Payne

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9, 12 and 17 is/are rejected.
- 7) ☒ Claim(s) 7 and 10, 11, 13, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Springer (U.S. Patent 2,893,379) in view of Yamashita (U.S. Patent 4,599,537), Lilly (U.S. Patent 3,461,346) and Lagerway et al. (U.S. Patent 5,774,271).

Regarding claim 1, Springer discloses a headlight housing (Fig. 1) including a light source (Fig. 3) and a light path from the lens assembly in the headlight housing to emit light outside the headlight housing to a surgical area (Fig. 5, right). Springer does not disclose an LED or a fiber optic rod or a variable electric power source or a lens in direct communication with the fiber optic rod.

Yamashita discloses an LED light source (reference number 1) and a fiber optic rod (reference number 31) disposed directly adjacent to and abutting against the LED light source (Fig. 6).

Lilly discloses an electrical power source that is variable for providing power to the LED light source connected to the light source (column 2, lines 39-45).

Lagerway et al. discloses a lens assembly (reference numbers 42 and 44) in direct optical communication with the output of the fiber optic rod (Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the LED of Yamashita to replace the light source of Springer to make the apparatus have less weight, use less power and produce less heat.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the variable source of Lilly and connect it to the light source of Yamashita in the apparatus of Springer to vary the intensity of the light source (column 2, line 66, to column 3, line 3, of Lilly).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Lagerway et al. in the apparatus of Springer and Yamashita to collimate the light to adequately illuminate a work space. See column 1, lines 10-20, of Lagerway et al.

Concerning claim 2, Springer discloses means for attaching the headlight housing to a headband to be worn by a surgeon (Fig. 1).

Regarding claim 4, Springer does not disclose a mirror. Lagerway et al. discloses a mirror (reference number 60) mounted in the light path from the lens assembly to the housing light outlet (Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the mirror of Lagerway et al. in the apparatus of Springer to direct light to the precise spot desired. See Fig. 3 of Lagerway et al.

Regarding claim 6, Springer and Yamashita do not disclose a plurality of optic strands. Lagerway et al. discloses a bundle or bundles of a plurality of optic strands (reference number 19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Lagerway et al. in the apparatus of Springer and Yamashita to conduct more light from the light source, thus increasing efficiency of the apparatus.

Concerning claim 8, Springer does not disclose a collimating lens. Lagerway et al. discloses one or more collimating lenses (reference numbers 42 and 44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lenses of Lagerway et al. in the apparatus of Springer to collimate the light to light the operating area sufficiently (column 1, lines 15-25, of Lagerway et al.).

Regarding claim 9, Springer does not disclose a collimating lens. Lagerway et al. discloses a first collimating lens (reference number 42) and a second collimating lens (reference number 44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lenses of Lagerway et al. in the apparatus of Springer to collimate the light to light the operating area sufficiently (column 1, lines 15-25, of Lagerway et al.).

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Springer in view of Yamashita, Lilly and Lagerway et al. as applied to claim 1 above, and further in view of Wong et al. (U.S. Patent 6,390,640) and Gonser et al. (U.S. Patent 5,003,434).

Regarding claim 3, Springer, Yamashita, Lilly and Lagerway et al. do not disclose a white light source of approximately 5,500 Kelvins, the light source being on a circuit board.

Wong discloses the LED light source (reference number 27) being connected to a circuit board (reference number 35) mounted in the headlight housing (Fig. 3).

Gonser et al. discloses a white light source of approximately 5,500 degrees Kelvin (column 3, lines 40-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Wong in the apparatus of Springer, Yamashita, Lilly and Lagerway et al. to easily get current to the light source.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the light source of Gonser in the apparatus of Springer, Yamashita, Lilly and Lagerway et al. to provide the best color temperature for illuminating a person's mouth. See column 3, lines 40-53, of Gonser.

4. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Springer in view of Yamashita, Savage, Jr. (U.S. Patent 5,732,176) and Lagerway et al.

Regarding claim 5, Springer discloses a housing with an opening for emitting light (Figs. 1 and 3) with the light source in the housing (Fig. 3). Springer does not disclose an LED, an optical fiber rod or a pair of collimating lenses or a housing containing them.

Yamashita discloses an LED light source (reference number 1) in direct physical contact with and abutting against a fiber optic rod that forms a direct light optical channel (reference number 31, Fig. 6).

Lagerway et al. discloses a pair of collimating lenses (reference numbers 42 and 44) in direct optical communication with the fiber optic rod (reference number 19, Fig. 3), with the collimating lenses in the housing (Fig. 3).

Savage, Jr. discloses the LED light source (reference number 11), the lens (reference number 13) and the fiber optic rod (reference number 12) being all self-contained in the small housing (Fig. 2, bottom) and a power source (reference number 19a) that is connected to the LED light source to provide power to the LED light source (column 4, lines 1-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the LED of Yamashita to replace the light source of Springer to produce less heat, make the apparatus lighter and use less energy.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Lagerway et al. in the apparatus of Springer to collimate the light to light up the operating table efficiently.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Savage, Jr. with the lenses of Lagerway and the apparatus of Springer to protect the apparatus. See the bottom of Fig. 2 of Savage, Jr.

Concerning claim 12, Springer and Yamashita does not disclose a bundle of fiber optic strands. Lagerway et al. discloses a bundle of fiber optic strands (reference number 19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Lagerway et al. in the apparatus of Springer and Yamashita to conduct more light from the light source, thus increasing efficiency of the apparatus.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Springer in view of Yamashita, Savage, Jr. (U.S. Patent 5,732,176) and Lagerway et al. as applied to claim 5 above, and further in view of Lilly.

Regarding claim 17, Springer, Yamashita, Savage, Jr.; and Lagerway et al. do not disclose a variable power source.

Lilly discloses an electrical power source that is variable (column 2, lines 39-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the variable power source of Lilly in the apparatus of Springer, Yamashita, Savage,

Jr; and Lagerway et al. to enable one to change the amount of power going to the light source.

See column 2, lines 39-45, of Lilly.

#### ***Allowable Subject Matter***

5. Claims 7, 10, 11, 13, 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter. The prior art does not disclose a headlight with the following features:

1) a proximal end of the fiber optic rod that is a hemispherical concave shape as recited in claims 7 and 13;

2) the first collimating lens is in direct physical contact with a distal end and output end of the fiber optic rod so that the distal end of the fiber optic rod abuts against the first collimating lens as recited in claims 10 and 15.

#### ***Response to Arguments***

7. Applicant's arguments filed 6/6/2006 have been fully considered but they are not persuasive. Applicant argues that Yamashita does not disclose the fiber optic rod abutting the LED, because the fluorescent element is in between them. To the contrary, Yamashita does show this feature, because the fluorescent element is part of the light source, and the fiber optic rod abuts it. M.P.E.P. 2111 requires that the claims be read broadly, and the Applicant is asking for a much narrower reading than the law requires.



Regarding Lagerway, this reference is not cited for the placement of the light source in the rejection of claim 1. Springer is cited for this feature in the rejection. Yamashita is cited for the placement of the fiber optic cable with respect to the LED.

The other arguments regarding the prior art stand or fall with the arguments above, and the rejections stand for the reasons delineated above. The arguments regarding 35 USC 112, 2<sup>nd</sup> paragraph are accepted.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon E. Payne whose telephone number is (571) 272-2379. The examiner can normally be reached on regular business hours.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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